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Screwing With Pocketknives

by Dennis Ellingsen

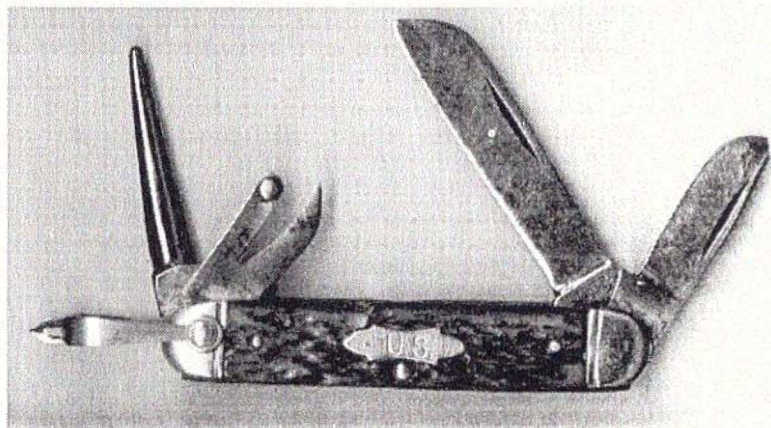
In the beginning there was the slotted head screw. This was a "minus," both in design and in actual use. Then came the Phillips' head screw. This was a "plus," both in design and in actual use. Or, if this doesn't make sense, look at the screws from the top view; and you can't help but note that one is a minus sign and the other is a plus sign.

The standard slotted screw head has many advantages as well as many disadvantages. A screwdriver placed in the slot can slip from the head of this screw, and there is no good way to center the screw or to insure that the screw can be driven straight. The head

also has sharp edges which can cut or snag anything that comes in contact with it. This design did not lend itself to speed in manufacturing assembly as special care had to be taken to align the screwdriver to the screw. There was also the problem of the screwdriver slipping off the screw head which meant lost time or a damaged product.

In 1930 Henry F. Phillips from Portland, Oregon, designed a screw with a different head, the Phillips head screw. The design made it easier to align a screw driver with the head of the screw. The increased surface area on the head insured positive contact of

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This is the first variation of the Ulster Mountain Knife. The Phillips driver is located on the end of the bail. The first model used two back springs in its design. Note the shield, grooved bolsters, sheep foot main blade, spey blade and the old style can opener blade.



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the driver and also placed the center of force directly in line with the screw, which would give better control of the placement of the screw. This also insured a screw would be driven in straight. This was a plus in manufacturing, as a power driver could easily locate the head of the screw; and when it was fully seated, cam itself out of the screw head. This is due to the fact that the Phillips driver can be designed with tapered type wings that prevent it from over driving the screw. Bottom line was speed and accuracy in the manufacturing process, which lends itself to the assembly line.

World War II required speed of manufacturing. Quality needed to be maintained; and when a screw was needed, the Phillips head screw was a good consideration in product manufacturing. (Note that most

military firearms were designed without the need of a screw, so a screwdriver was not required to dismantle or clean these firearms.)

During WWII the military had a need for snow skis. These were used by the Mountain Troop 10th division. The ski bindings were attached to the wooden skis with screws. The Phillips head screw allowed for speed in assembly, driving the screws straight, smooth heads for no snagging and the use of power tools to assemble the product. But the problem of tightening or replacing the Phillips head screw in the field did require a special screw driver. What better way to offer this tool to the troops than a pocket knife that had this tool incorporated in it? Mind you, this would not be the main tool used but would be a field emergency tool or a just in

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Top: The second variation has the Phillips driver as a separate blade thus having to have three back springs to accommodate all the blades needed. This model differs from the previous in the use of the clip style main blade, sheep foot small blade and the lack of a shield. The "U.S." mark is usually on the bail.

Bottom: The third variation varies in the use of the safety can opener that was first submitted for a patent on 11/07/44. This model also has plain bolsters and the "U.S." mark can still be found on the bail.

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time tool.

Ulster Knife Company was the sole manufacturer that offered a pocket knife with a Phillips head screwdriver attachment. The time period would be about 1942 until 1946, as this was the time that this tool would find use in the mili-

tary. The curious part about this pocket knife was that it evolved with several design changes. To a collector this is a fun specialty type knife to study. The first design of this pocket knife was rather strange. This pocket knife had a sheep foot style main blade, punch blade, can opener blade, a small spey

style blade and the Phillips head driver was located on the top of the oversized flat bail. If the Phillips was used to lightly tighten screws, it would function quite well. If it was used in a high torque situation, it could fail terribly; but it did work. This first design knife used two springs for the

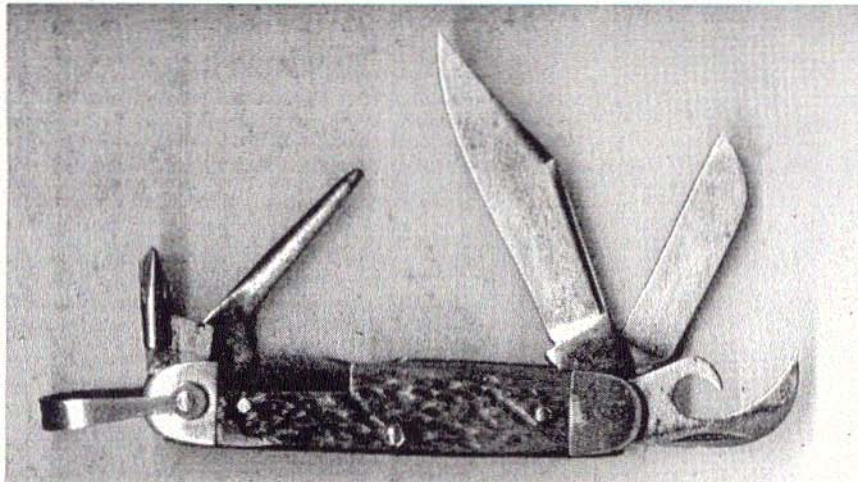
blades. Subsequent changes in this pocket knife used three springs.

I have referred to the carry ring as a bail. The military calls it a clevis. But then again we can call it a lanyard, a ring, a lanyard ring, bail ring, detachable ring, loop ring, hoop, lanyard loop, staple or shackle. If you want to study this subject further refer to *Knife World*, April 1999 and the article titled "This Thing Called Bail."

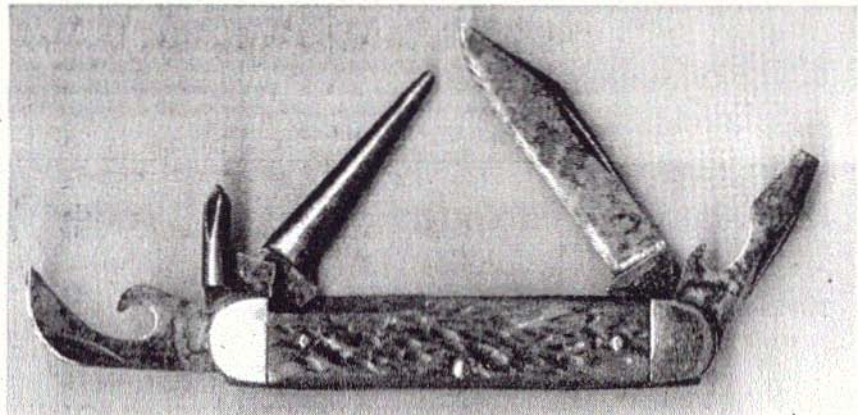
The sheep foot main blade on the first variation of the Ulster Mountain knife could have been used to spread wax on skis and also for general cutting chores. The spey style blade was a small blade that could also be used for flesh

cutting, if used only for this purpose. One is always encouraged to keep this blade sharp. The pocket knife also had a shield on the bone handles, which suggests this product was an early development design. Shields had no function during war use and were a waste of resources. The knife was also smaller in size than most utility knives of this time. This would help when carrying the knife and conserving space. It should also be noted that the bolsters on the early specimens have a grooved line on them as opposed to later made knives that had plain bolsters. The line was cosmetic and served no other pur-

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This fourth variation could be military or commercial. The unique feature here is the placement of the can opener on the main blade end. This also explains why the main blade has a long nail nick as the blade is hard to open located behind the can opener.



This most likely is the commercial offering of the WWII Mountain knife. It is without bail and a standard flat blade screwdriver replaces the small sheep foot blade. We can guess that these knives were made up after the war from spare parts or they were made to see how the market would accept them.

J.A. HENCKELS

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4" CLOSED

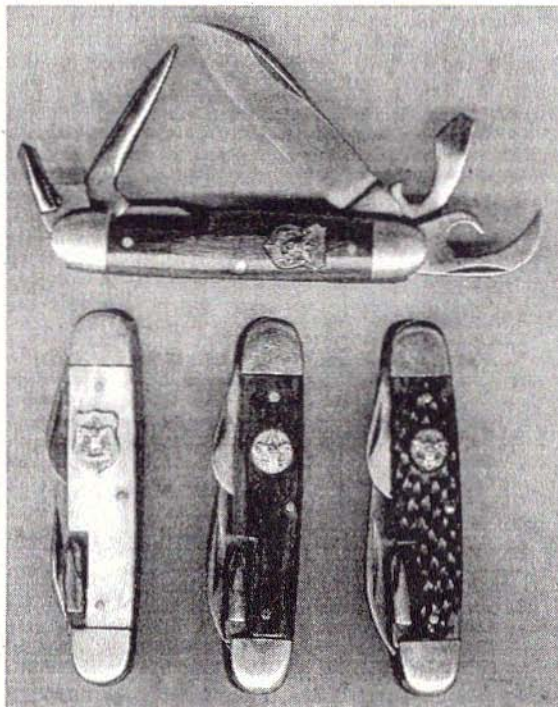
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in Solingen,
Germany**

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pose. The elimination of this would speed manufacturing.

The Phillips screwdriver was added on future models as a separate blade that unfolded from the knife. The blade nestled over a cut out that was made in the front handle. The knife now was a three spring knife with five blades. The screwdriver construction could best be described as a flat partial blade which had a Phillips screwdriver bit welded to the side of it.

The main blade on later patterns was then changed to a clip blade design which can be found on almost all knives thereafter. (One specimen was found with a spear blade. If this is correct, then I suspect other models can be found with spear blades. If not, this would be a repaired knife or a ?? one off prototype.)

The small spey blade was changed from the original design to a small sheep foot style blade. The flat heavy duty bail (clevis, shackle, staple, etc.) was never changed, save for one design that did not sport one. It might be suspected that Ulster attempted to introduce this as a commercial knife after the War, and the bail was eliminated. But



The Boy Scouts of America (BSA) introduced this 3-3/8" pocket knife with a Phillips head driver in 1952. The badge emblem was discontinued in 1962 and was replaced by the round BSA shield. The first model introduced was the wood handle variation. These models do not have a bail and were made by Imperial.

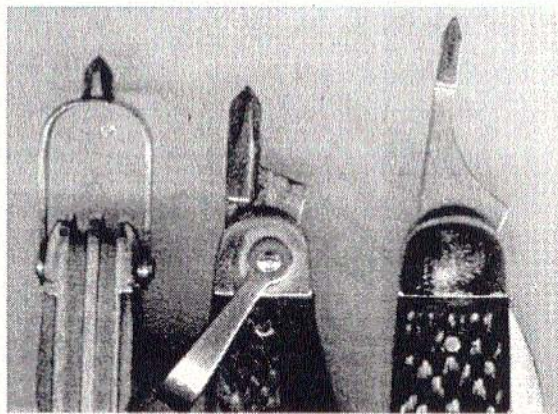
then again, any guess would be a good guess. It might be noted that on this bail-less model, the small

cutting blade has been replaced with a straight blade screwdriver.

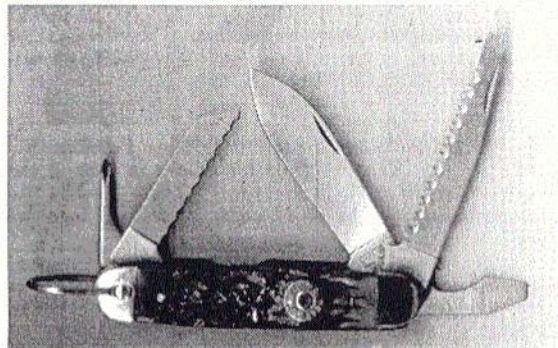
Another observation on



The 3-3/4" Phillips driver Boy Scout knives were made either by Ulster or Camillus. The top knife is the Camillus and the others are Ulster. There were very slight design changes in this model save for handle materials which were brown, black, white and ivory. All these knives were made after 1962 as per the round BSA shield.



There were few design changes of the Phillips driver in a pocketknife. The first try was the driver on the end of the bail. The second and most common method was to weld a Phillips driver to a flat blade. The third method, introduced by Camillus, was to make the whole device one integral design.



The cartridge series knife as offered by Camillus uses the latest design in the use of the Phillips driver. This is the first knife ever to have the Phillips driver on the rear portion of the knife.

these knives is the stamping of "U.S." on the bail. This was not always done. For the most part three blades are found on the bail end of the knife, but on occasion a specimen can be found that has the three blades on the non bail end of the knife. For what reason this was done, I am not sure. Another anomaly is the use of the long pull on the main blade where normally a short nail nick pull was used. But throughout all these changes, the beautiful bone handles persisted.

One of the most obvious evolution changes in this pattern knife was the can opener. Early specimens had the "D" style design that used a round lift pin. This was instantly replaced with the safety style can opener. This new design was first introduced as a patent application on November 7, 1944. All of these changes are interesting and help us pinpoint the little windows in history.

The War ended and the need for pocket knives with Phillips head screwdrivers seemed to end too. But then in 1952 Imperial Knife Company introduced a knife for the Boy Scouts of America (BSA) that had a Phillips head screwdriver

included in its array of blades in a pocket tool. These were knives without bails and measured 3.40" (3-3/8"). Not your standard sized 3.72" (3-3/4") knife, but rather a smaller style in the image of the WWII mountain knives. These knives had three blades that are found on the main blade end of the knife. The other two blades were the can opener and the screw driver (combo cap lifter) blades. The Phillips and the punch blade were on the other end.

All of the knives made for the BSA had spear main blades. The first knife in this series made by Imperial had rosewood handles and the first class badge style shield, making it an official BSA pocket knife. After 1962 this shield was changed to the round style shield. Another specimen of this knife with the badge style shield (1952 - 1962) was in a white, pearl-ized, synthetic, smooth white handle. The round shielded knives, again without bail, came in a dark brown, smooth plastic handle and a brown, jugged delrin handle that resembled bone. All these junior sized knives were made by Imperial Knife Co.

When Ulster made the

larger 3-3/4" official BSA knives with the Phillips head driver, they too made a knife without a bail. The first style had brown, jugged delrin handles (1976 - 1979) followed by an ivory colored, jugged delrin knife (1980 - 1981). Another style was a white, jugged delrin handle (1982 - 1983) followed by a smooth white handle knife (1984 - 1985). All these knives had the round BSA official shield.

One other company made a pocket knife with a Phillips head driver. This was Camillus and again this was for the Boy Scouts of America. These knives were also without bail. The first ones were made between 1986 and 1991 and were a deluxe model with black, delrin handles. The model that replaced it in 1992 had the first major change in the Phillips screwdriver design. It became a one piece solid design. It is completely different in design from any of the other drivers ever made. The most current Phillips head pocket knife is also made by Camillus and is in their cartridge series. This knife has a cartridge case head as a shield and features a wood saw that works quite well. This

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replaces the can opener blade. The smaller blade also is unique in that it has a serrated edge. Who would of think?

In going through my collection of utility knives, I came across the most unlikely knife with a Phillip's screwdriver. It goes back to 1990, and is a Red Ryder knife "A Boy's First Knife." It has a spear main blade, scissors, a slotted screwdriver, a cap lifter and the always ready Phillips screwdriver. Everyone knows about the Swiss Army type knives, where it probably is more rare to find one without a Phillips than with one. I'll leave that story to someone else. But for the second quiz of the day, try to figure out why the Swiss Army knives have a slot that runs down the shaft of the Phillips head driver on their knives.

There is yet one more device where one can find the Phillips head screwdriver. These are the multi-tool devices that Leatherman introduced to the knife scene many years ago. Almost all contain the Phillips head driver, along with too many to name other tools. This again is an article that could reach

deals with production style knives that are American made. I am aware of prototype knives that were designed in the 1940s, however a discussion of designs that didn't make it are not the point of this piece. I have also not written about the European style knives that also come equipped with Phillips head screwdrivers. Everyone knows about the Swiss Army type knives, where it probably is more rare to find one without a Phillips than with one. I'll leave that story to someone else. But for the second quiz of the day, try to figure out why the Swiss Army knives have a slot that runs down the shaft of the Phillips head driver on their knives.

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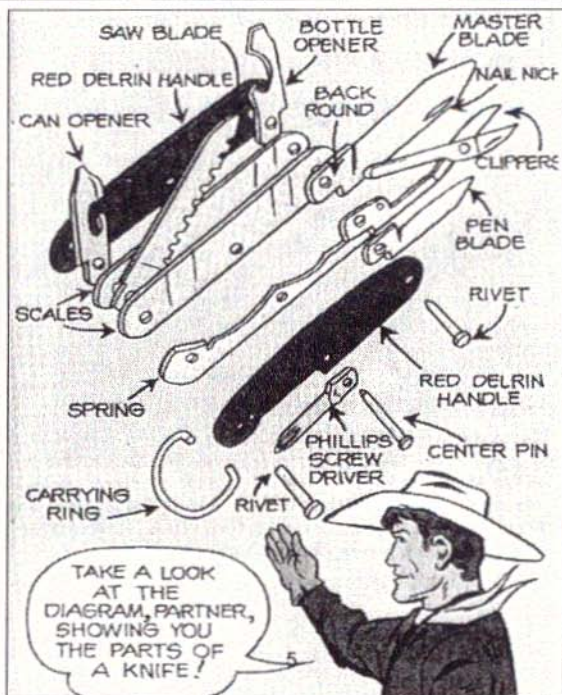
book proportions.

Until of late, all pocket knives with the Phillips type tool in them have been organizational driven. First it was the Army and then the Boy Scouts of America. But in any case, dear elayne thinks that it just offers me another chance to "screw" around with another writing task. Oh well.

My thanks to Ed Holbrook and the information in his book *Official Scout Blades*. □

Check list for Ulster Mountain Knife variations:
 Bolsters - plain or grooved
 Main blade - Clip - Sheep Foot - Spear
 Can opener - Safety or earlier broken "D" style
 Small blade - Spey or sheep foot
 Shield - With or without
 Back springs - Two or three

Check list for BSA - Phillips head driver knives
 Maker - Imperial - Ulster - Camillus
 Size - 3-3/8 or 3-3/4
 All 3-3/8 knives were made by Imperial
 Variations of handles



The Red Ryder knife has a Phillips head driver in it. The only justification that I can see is that it was marketed as "The Boy's First Knife." The booklet that accompanies this knife is quite good and informative.